

ENDOLUMINAL PROSTHESES AND THERAPIES FOR HIGHLY VARIABLE BODY LUMENS

ABSTRACT OF THE DISCLOSURE

5 The present invention provides a branching
endoluminal prosthesis for use in branching body lumen systems
which includes a trunk lumen and first and second branch
lumens. The prostheses comprises a radially expandable
10 tubular trunk portion having a prosthetic trunk lumen, and
radially expandable tubular first and second branch portions
with first and second prosthetic branch lumens, respectively.
A radially expandable tubular Y-connector portion provides
fluid communication between the prosthetic trunk lumen and the
15 first and second prosthetic branch lumens. Although it is
often considered desirable to maximize the column strength of
endoluminal prostheses, and although the trunk portion will
generally have a larger cross-section than much of the
remainder of a branching endoluminal prostheses, the expanded
20 trunk portion is more axially flexible than the expanded
Y-connector portion, as insufficient flexibility along the
trunk portion may result in leakage between the prosthesis and
the trunk lumen of the body lumen system. In contrast, the
Y-connector portion benefits from a less axially flexible
25 structure to avoid distortion of the flow balance between the
luminal branches.